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Chvala

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(54) **HEATSHIELD ACCESSORY FOR FIREARMS**

(75) Inventor: **John R. Chvala**, Grafton, WI (US)

(73) Assignee: **Advanced Technology International USA, LLC**, Cedarburg, WI (US)

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(52) **U.S. Cl.**
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USPC **42/71.01**; 42/90; 89/14.1

(58) **Field of Classification Search**
CPC F41C 7/04; F41C 7/02; F41C 23/16; F41A 99/00; F41A 35/00; F41A 21/44
USPC 42/71.01, 71.02, 85, 90, 94; 89/14.1, 89/14.05
See application file for complete search history.

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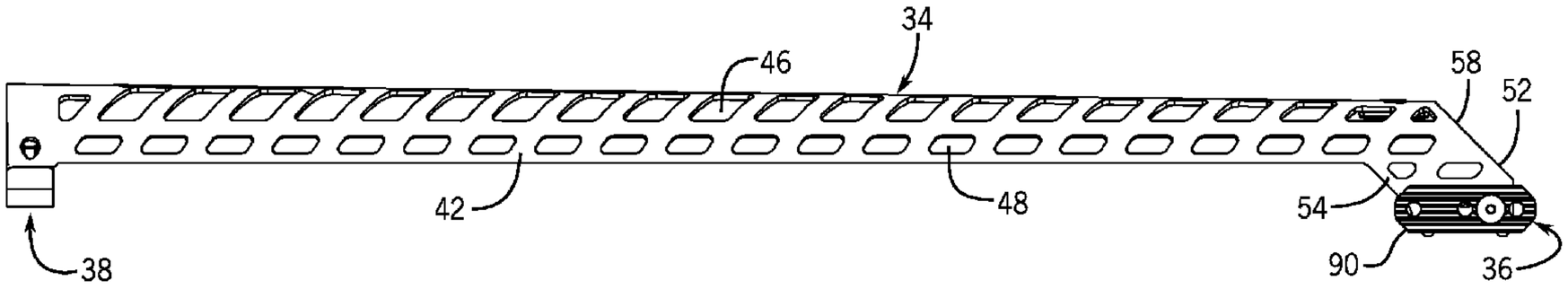
Primary Examiner — Stephen M Johnson
Assistant Examiner — Joshua Freeman
(74) *Attorney, Agent, or Firm* — Andrus Intellectual Property Law, LLP

(57) **ABSTRACT**

A heatshield assembly for a metal barrel of a firearm includes a heatshield body provided with a rear end extending to a front end, and configured to overlie the barrel of the firearm. An insulating mounting arrangement is frictionally attached to and located within the heatshield body. The mounting arrangement is separate from the heatshield body for mounting the heatshield body to the barrel of a firearm in a continuous spaced relationship therefrom without damaging the barrel. With the heatshield body constructed of a metal material, the mounting arrangement is particularly constructed to prevent metal-to-metal contact between the heatshield body and the barrel.

23 Claims, 6 Drawing Sheets



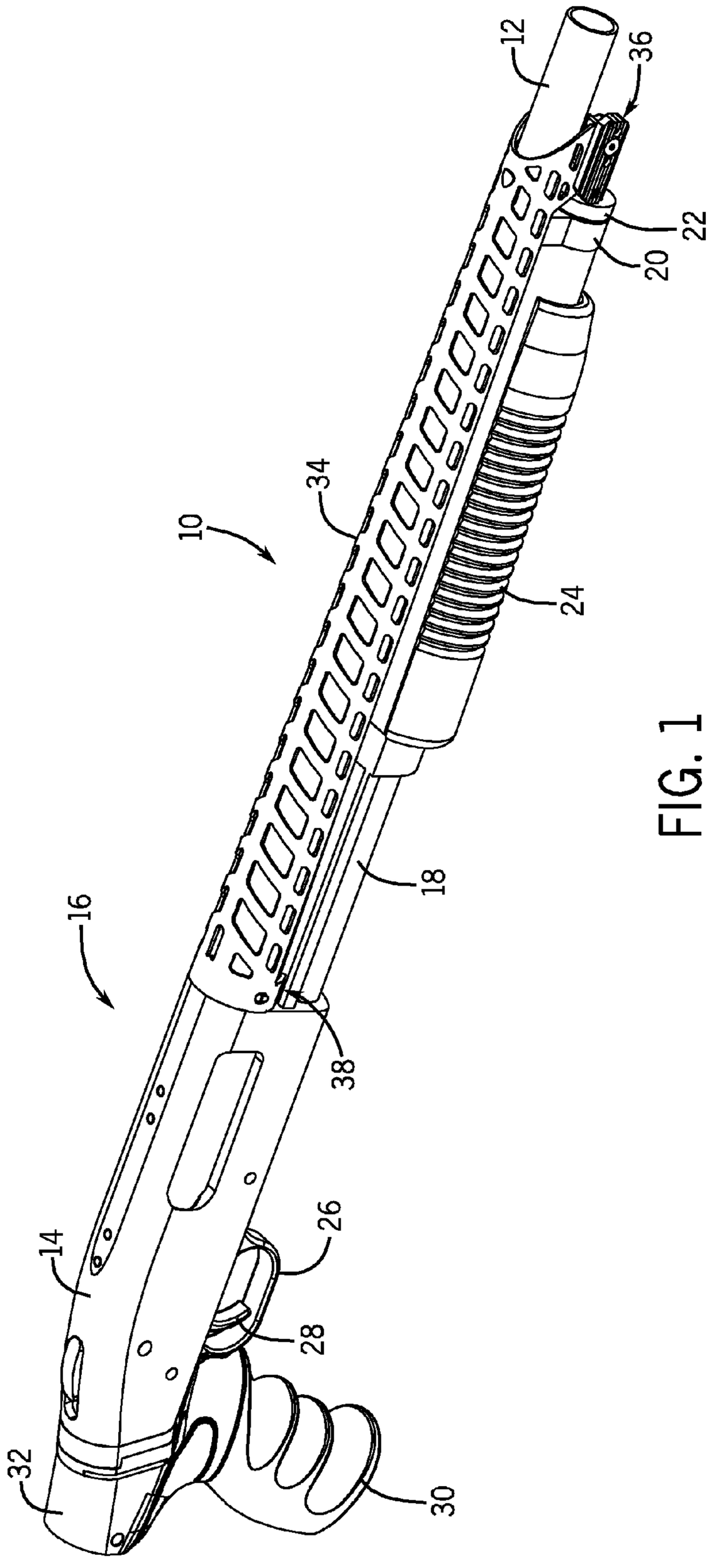


FIG. 1

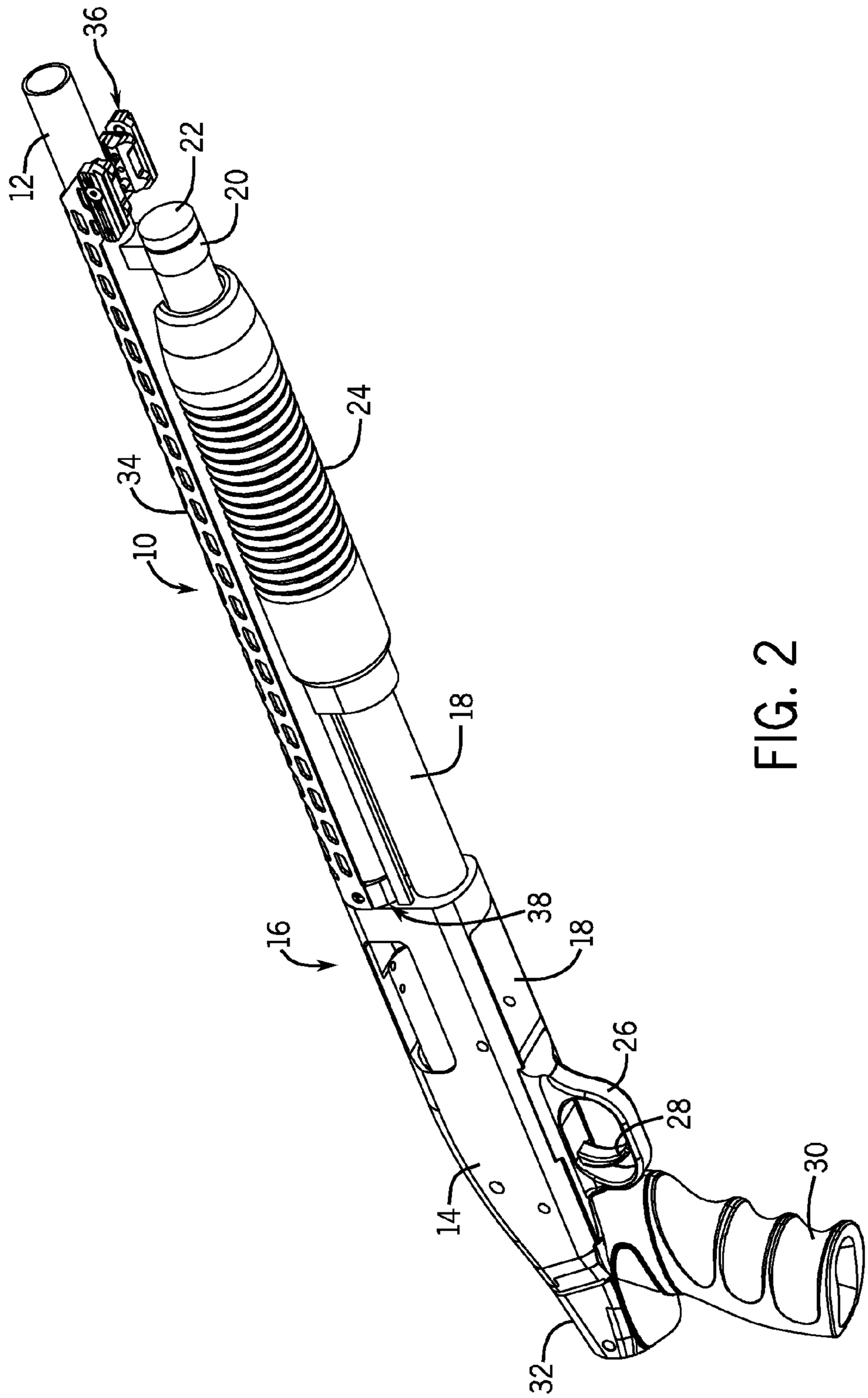


FIG. 2

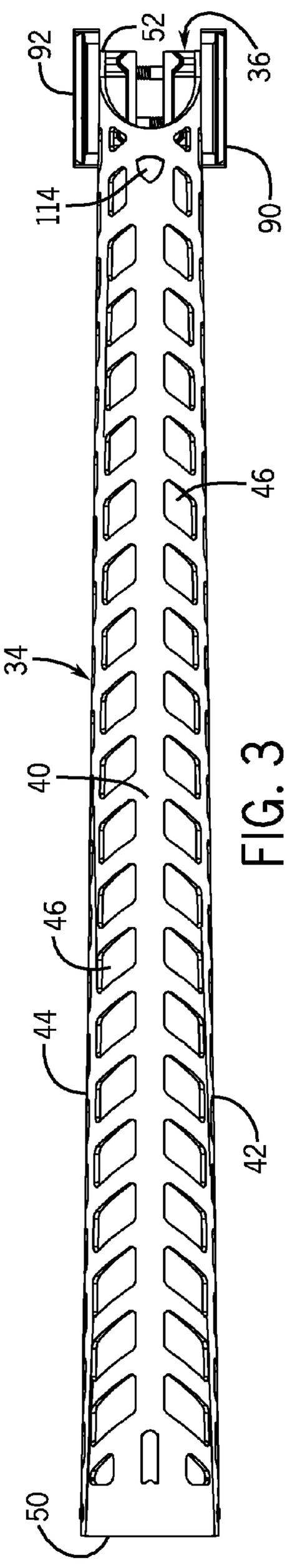


FIG. 3

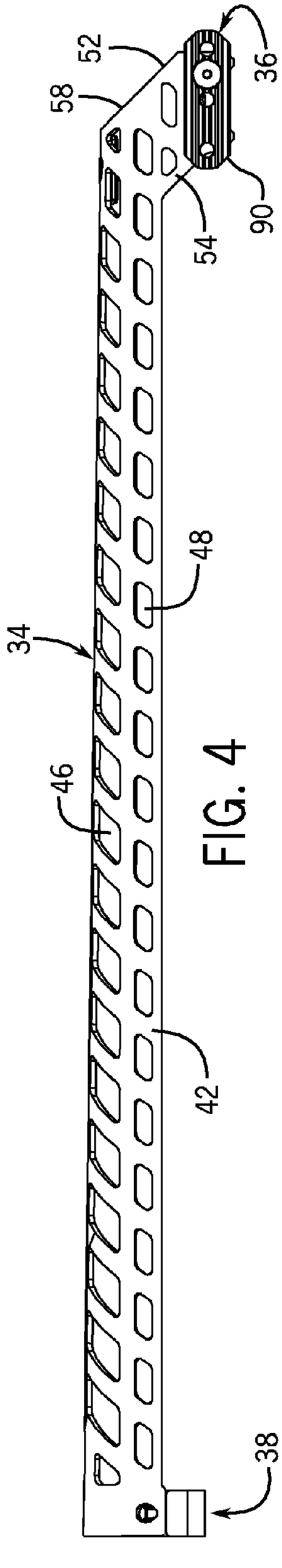


FIG. 4

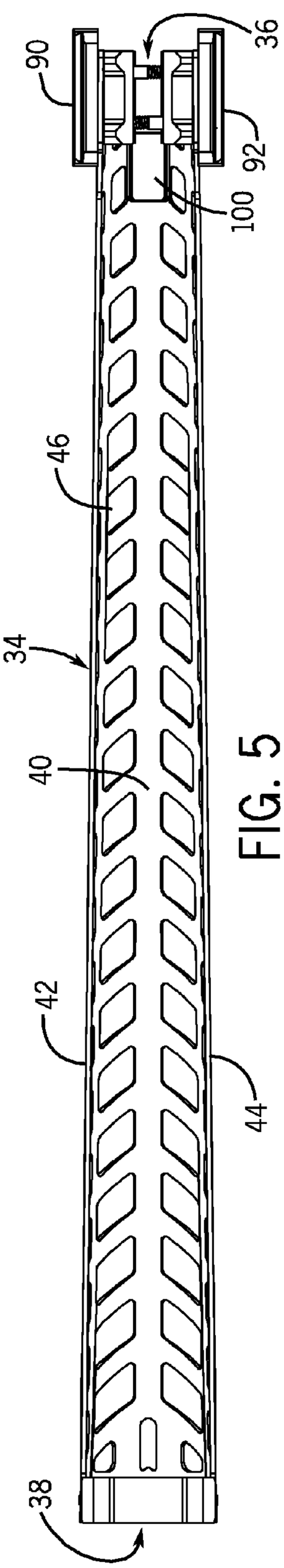


FIG. 5

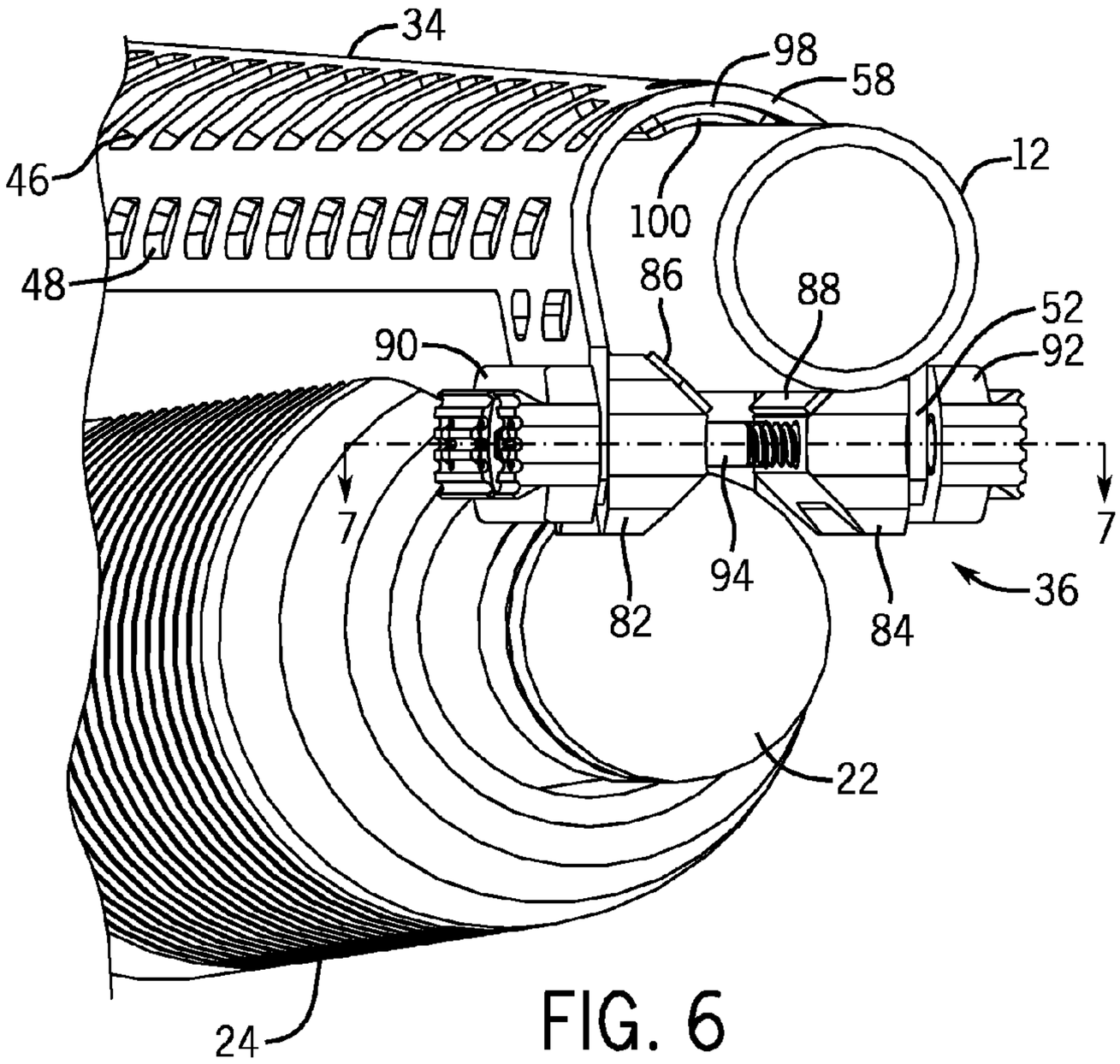

34
98
58
46
12
100
48
86
88
52
90
92
7
7
94
36
82
84
22
24

FIG. 6

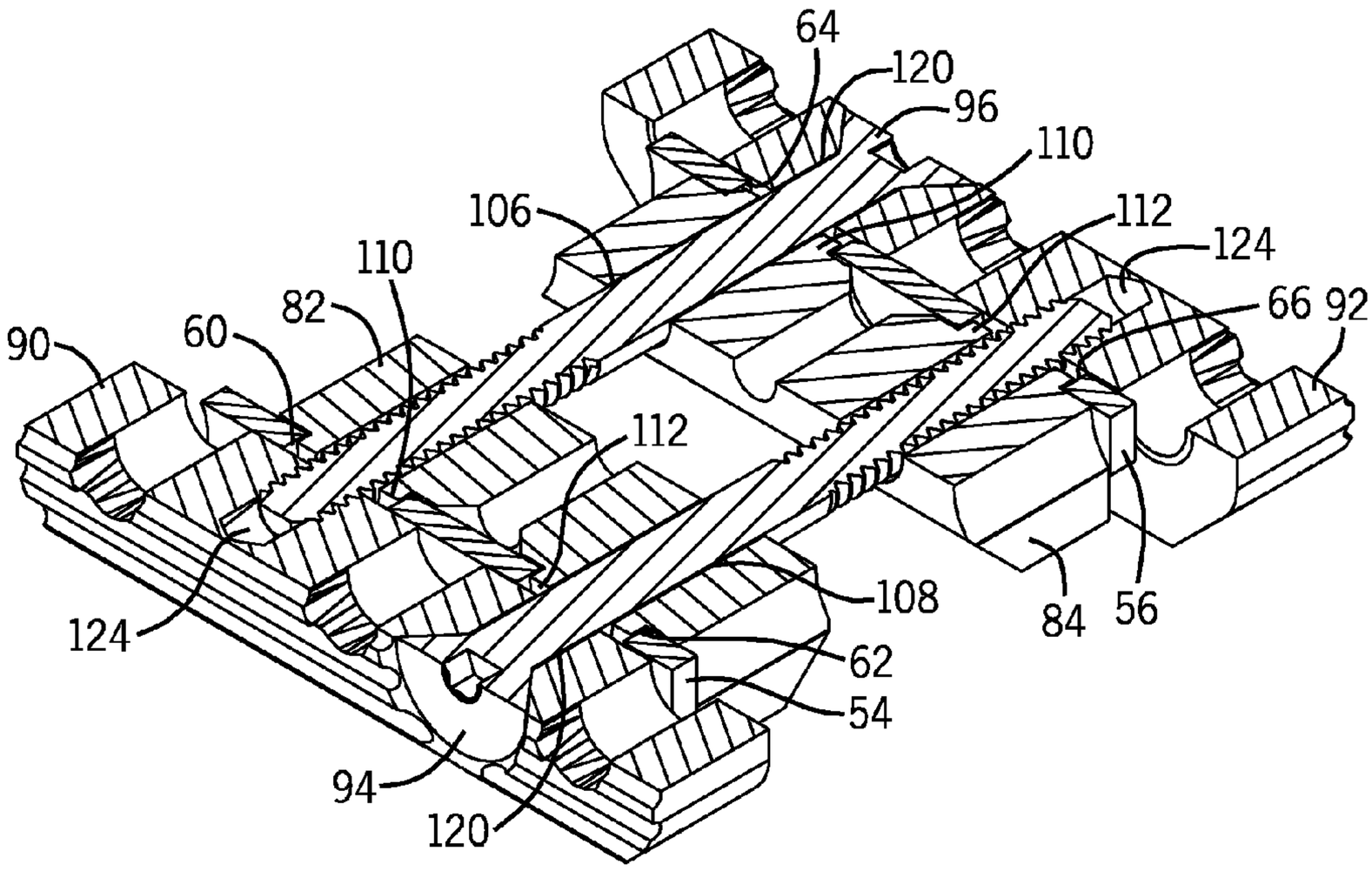

64
120
96
110
106
112
124
110
82
66
92
60
90
112
108
84
56
124
62
54
94
120

FIG. 7

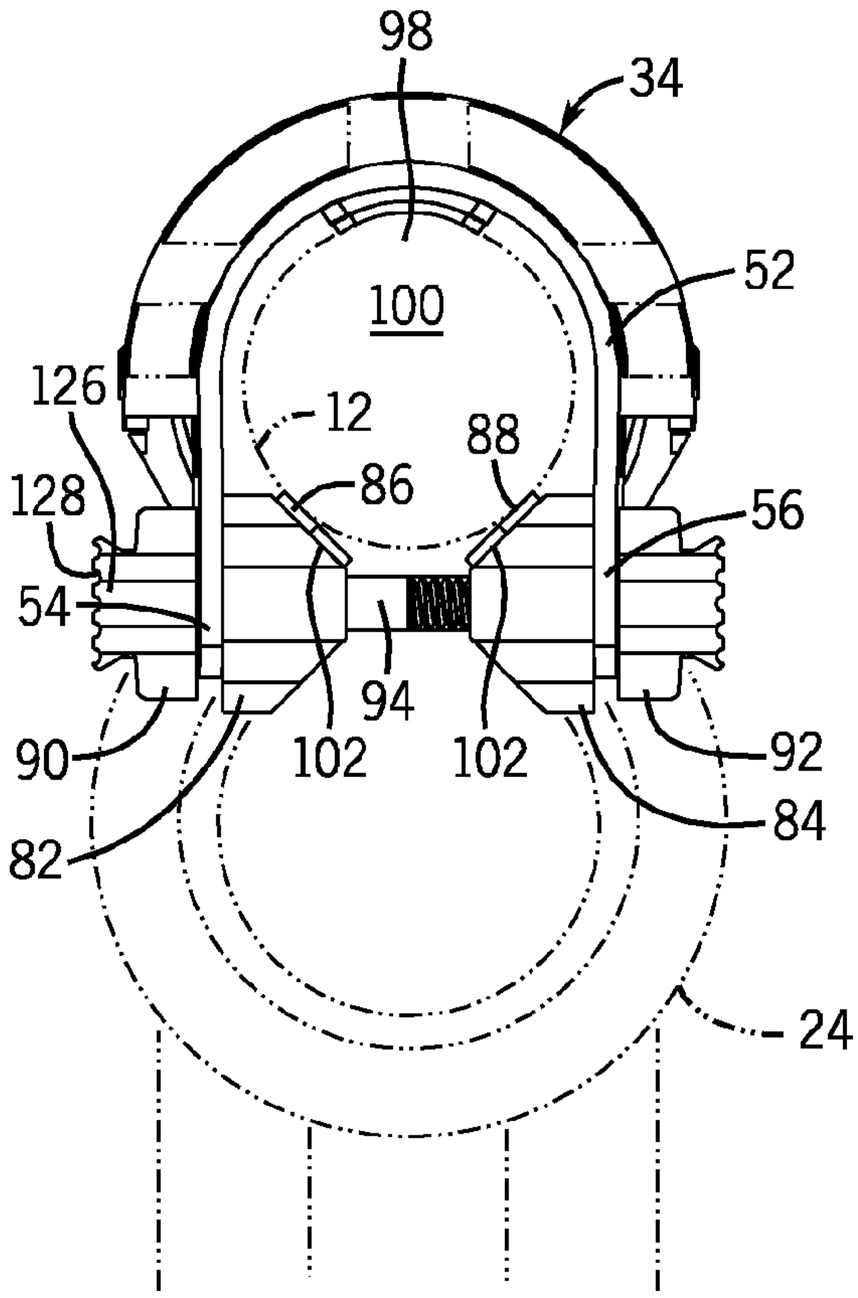

98
34
52
100
126
12
88
86
128
56
54
94
102
102
90
92
84
82
24

FIG. 8

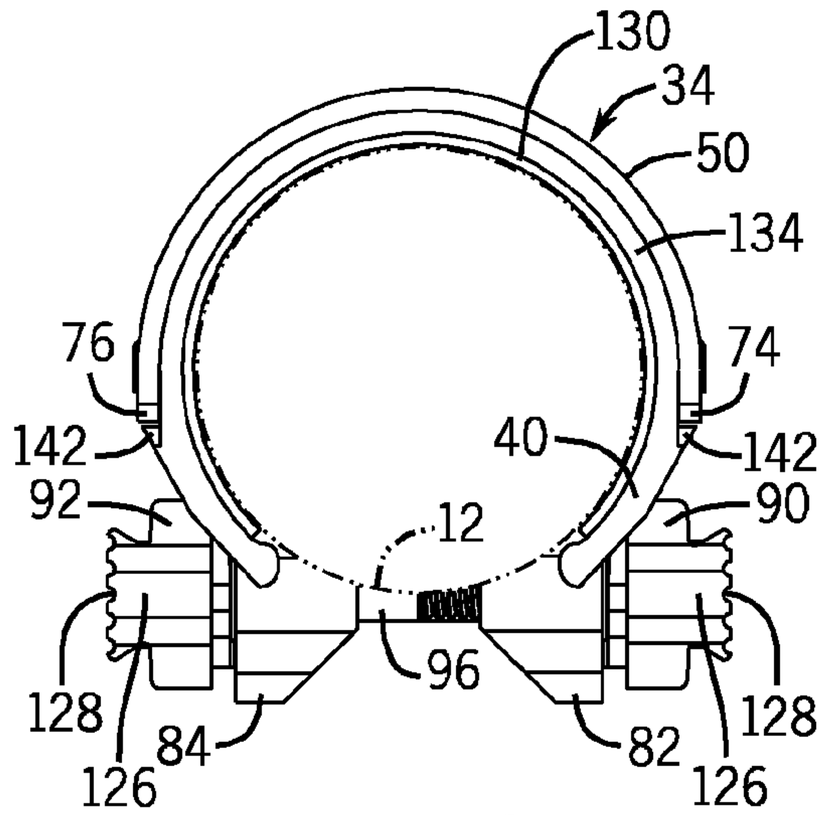

130
34
50
134
76
74
142
40
142
92
90
12
96
128
84
82
128
126
126

FIG. 9

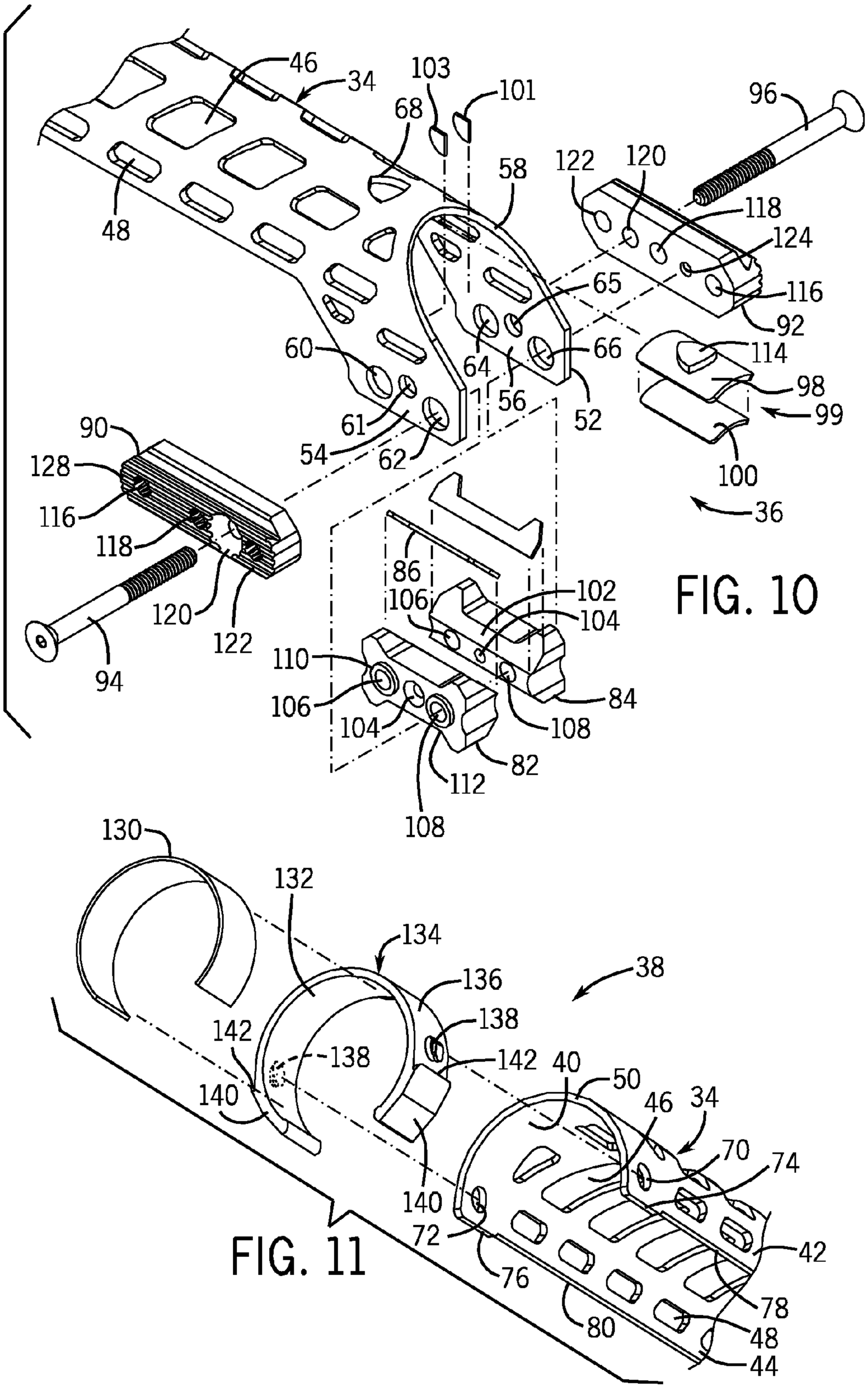

46
34
103
101
68
96
58
122
120
48
118
124
65
116
92
60
66
64
114
56
98
52
99
61
54
62
100
36
90
128
116
118
120
122
94
86
102
106
104
110
106
84
104
108
82
112
108
130
132
134
38
136
138
142
138
142
40
50
46
34
140
70
74
140
72
42
76
78
80
48
44

FIG. 10

FIG. 11

HEATSHIELD ACCESSORY FOR FIREARMS

BACKGROUND OF THE INVENTION

The present disclosure relates generally to firearm accessories, and more particularly, pertains to a heatshield assembly provided for a barrel of a firearm or weapon.

It is well known to those skilled in the art that rapid fire weapons, such as semi-automatic or automatic rifles and shotguns, are characterized by the heating of their metal barrels to relatively high temperatures, often in excess of 600° F. At such intense temperatures, the barrels cannot be comfortably or safely handled by the shooter of the weapon. Various expedients, typically in the form of heatshield assemblies, have been resorted to in the past in an attempt to protect the hands of the person firing the weapon from harmful contact with the excessively hot barrel.

Certain known heatshield assemblies typically include a curved, perforated metallic body having front and rear tabs, clamps, flanges or other retaining structures which are integrally formed on the body. These integral retaining structures are bent, clamped and secured with additional fasteners to the metal barrel to mount the heatshield assembly along substantially the entire length of the barrel. Such known heatshield assemblies have been designed to allow dissipation of heat to protect the shooter's hands during the rapid discharging of the firearm. Unfortunately, installation and use of these currently available heatshield assemblies results in sliding metal-to-metal contact between the heatshield body and the barrel causing possible damage to the barrel which is undesirable.

Accordingly, there is a need to provide a heatshield assembly in which a heatshield body is secured to the barrel of a firearm in a suspended, isolated relationship so as to prevent any direct metal-to-metal contact between the heatshield body and the barrel, and eliminate any scratching or damage to the barrel. There is an additional need to provide a firearm heatshield assembly having a mounting arrangement which can prevent movement of the heatshield body on the barrel during use, withstand temperatures in excess of 600° F., and enable optional attachment of further accessories to the heatshield body.

SUMMARY OF THE INVENTION

The present disclosure relates to a firearm heatshield assembly including a heatshield body having a pair of opposed ends, the heatshield body being adapted to overlie a barrel of the firearm. The heatshield assembly includes an insulating mounting arrangement frictionally attached and located within the heatshield body. The mounting arrangement is adapted to mount the heatshield body to the barrel of the firearm in continuous spaced relationship therefrom.

The heatshield body is provided with retaining structure for the mounting arrangement, and the mounting arrangement is snap fit into the retaining structure. The heatshield body is provided with a set of mounting holes, and the mounting arrangement includes a first mounting arrangement located at one end of the heatshield body, and a second mounting arrangement located at the other end of the heatshield body. The first mounting arrangement is snap fit into walls defining certain of the mounting holes, and the second mounting arrangement is snap fit into walls defining other of the mounting holes. The mounting arrangement includes a clipping structure which is snap fit within the heatshield body at one location, and a clamping structure which is snap fit within the heatshield body at another location. In a preferred embodiment, the heatshield body is formed of a metal material, and the mounting arrangement includes a plurality of non-metal mounting elements.

The heatshield body is configured of an elongated, perforated and inverted shell having an arcuate upper wall and a pair of opposed sidewalls depending from the upper wall. The heatshield body has a tapered construction with one end of the heatshield body having an inverted substantially semi-cylindrical configuration, and the opposite end of the heatshield body having an inverted substantially U-shaped configuration. One end of the heatshield body is provided with a first set of mounting holes located on the opposed sidewalls of the heatshield body, and the other end of the heatshield body is provided with a second set of mounting holes located on the opposed sidewalls and the upper wall of the heatshield body.

The mounting arrangement includes a resilient arcuate clip having an inner surface provided with a first silicon pad structure, and an outer surface provided with nibs that are snap fit into walls defining the first set of mounting holes. Lower portions of the clip are provided with wings which are snap fit into engagement with lower edges on the opposed sidewalls of the heatshield body. The mounting arrangement also includes a pair of spacer blocks lying along inside surfaces of the opposed sidewalls of the heatshield body, and having projections which are snap fit into walls defining the second set of mounting holes located on the opposed sidewalls of the heatshield body, the spacer blocks having angled mounting surfaces for mounting a second silicon pad structure thereon. The mounting arrangement further includes a third silicon pad structure having a tab which is snap fit into a wall defining one of the second set of mounting holes on the upper wall of the heatshield body. The mounting arrangement additionally includes a pair of rail attachments positioned on external surfaces of the opposed sidewalls of the heatshield body and aligned with the spacer blocks, and a pair of fasteners. Each fastener is passed through one of the rail attachments, one of the opposed sidewalls, both spacer blocks and the other of the opposed sidewalls, and threaded into the other of the rail attachments.

The present disclosure also relates to a heatshield assembly for a metal barrel of a firearm including a heatshield body provided with a rear end extending to a front end, and configured to overlie the barrel of the firearm. An insulating mounting arrangement is frictionally attached to and located within the heatshield body. The mounting arrangement is separate from the heatshield body for mounting the heatshield body to the barrel of the firearm in continuous spaced relationship therefrom without damaging the barrel.

The heatshield body is constructed of a metal material, and the mounting arrangement is constructed to prevent metal-to-metal contact between the heatshield body and the barrel. The heatshield body is provided with retaining structure for the mounting arrangement, and the mounting arrangement includes a clipping structure snap fit into the retaining structure inside a rear end of the heatshield body, and a clamping structure snap fit into the retaining structure inside the front end of the heatshield body. The mounting arrangement also includes a silicon pad structure which is engageable with the barrel to protect an external finish thereof.

The present disclosure also contemplates a method of mounting a heatshield assembly to a metal barrel of a firearm. The method includes the steps of a) providing a heatshield assembly having a rear end, a front end, an arcuate upper wall, and a pair of opposed sidewalls pending from the upper wall; b) providing a rear mounting arrangement which is snap fit within the rear end of the heatshield body; c) providing a front mounting arrangement which is snap fit within the front end of the heatshield body; d) snapping the rear mounting

arrangement onto a rear portion of the barrel; and e) clamping the front mounting arrangement on a front portion of the barrel. With this method of assembly, the front mounting arrangement and the rear mounting arrangement mount the heatshield body to the barrel in continuous spaced relationship therefrom without damaging the barrel.

The rear mounting arrangement includes a non-metal resilient clip having an inner surface provided with a first silicon pad structure engageable with the barrel, and an outer surface provided with nibs that are snap fit into walls defining rear mounting holes on the rear end of the heatshield body. The front mounting arrangement includes a pair of non-metal spacer blocks provided with projections that are snap fit into walls defining front mounting holes at the front end of the heatshield body, the spacer blocks being provided with a second silicon pad structure engageable with the lower portion of the barrel. The front mounting arrangement further includes a third silicon pad structure snap fit by means of a tab into a mounting hole formed in the upper wall of the heatshield body at the front end thereof, and engageable with an upper portion of the barrel. The front mounting arrangement also includes a pair of rail attachments positioned on external surfaces of the opposed sidewalls at the front end of the heatshield body. A pair of fasteners enable the clamping of the front mounting arrangement. Each fastener is passed through one of the rail attachments, one of the sidewalls, the pair of spacer blocks and the other of the opposed sidewalls, and threaded into the other of the rail attachments.

BRIEF DESCRIPTION OF THE DRAWINGS

The drawings illustrate the best mode presently contemplated in carrying out the disclosure. In the drawings:

FIG. **1** is a top perspective view of a shotgun having a barrel provided with a heatshield assembly in accordance with the present disclosure;

FIG. **2** is a bottom perspective view of FIG. **1**;

FIG. **3** is a top view of the heatshield assembly of FIGS. **1** and **2** removed from the shotgun;

FIG. **4** is an elevational view of the heatshield assembly shown in FIGS. **1** and **2**;

FIG. **5** is a bottom view of the heatshield assembly shown in FIGS. **1** and **2**;

FIG. **6** is an enlarged, fragmentary perspective view of a front end of the heatshield assembly mounted on the barrel of the shotgun;

FIG. **7** is a sectional view taken on line **7-7** of FIG. **6**;

FIG. **8** is a front view of FIG. **6** showing elements of the shotgun in phantom lines;

FIG. **9** is a rear view of the heatshield assembly of FIG. **6** with certain elements of the shotgun removed;

FIG. **10** is an exploded view of a front end of the heatshield assembly; and

FIG. **11** is an exploded view of a rear end of the heatshield assembly.

DETAILED DESCRIPTION OF THE INVENTION

Referring now to the drawings, FIGS. **1** and **2** illustrate a heatshield assembly **10** mounted on a metal barrel **12** extending forwardly from a receiver **14** of a firearm, such as a shotgun **16**.

Shotgun **16** typically includes a cartridge-storing magazine tube **18** that extends longitudinally from the receiver **14** and below the barrel **12**. A forward portion of the magazine tube **18** engages a barrel lug **20** and is held thereto by a magazine cap **22**. A gripping forend **24** is slidably mounted for back and forth or "pumping" movement relative to the magazine tube **18**. Shotgun **16** also includes a trigger guard **26**, a trigger **28** and a pistol grip **30** connected via a mounting device **32** below and at a rear end of the receiver **14**.

In accordance with the present disclosure, the heatshield assembly **10** is comprised of a heatshield body **34** and an insulating mounting arrangement, specifically a front mounting arrangement **36** and a rear mounting arrangement **38**, separate from and frictionally retained with the heatshield body **34**, for fixedly mounting the heatshield body **34** to the barrel **12** so that the heatshield body **34** is continuously maintained separated or isolated therefrom. In addition, the mounting arrangement **36**, **38** provides for clipping and clamping the heatshield body **34** to the barrel **12** in a manner which will not scratch or damage the barrel **12**.

Referring now to FIGS. **3-5**, the heatshield body **34** is constructed as an elongated, perforated and inverted shell which is preferably comprised of a powder coated, high strength steel or other suitable metal material. As will be further explained hereafter, the heatshield body **34** is sized and shaped to be suspended over an upper portion of the barrel **12**, and secured thereto at front and rear ends. The heatshield body **34** is integrally formed with an arcuate upper wall **40** and a pair of opposed sidewalls **42**, **44** depending from the upper wall **40**. The walls **40**, **42**, **44** are formed with a series of vent holes **46** and vent slots **48** along the length of the heatshield body **34** to permit air flow therethrough. The heatshield body **34** tapers from a rear end **50** having an inverted semi-cylindrical configuration (FIG. **9**) to a front end **52** having an inverted U-shaped configuration (FIG. **8**). The tapering of heatshield body **34** typically corresponds to the tapering of barrel **12** which has a larger diameter at a rearward end and a smaller diameter at a forward end. As seen best in FIGS. **4** and **10**, the front end **52** includes opposed side portions **54**, **56** that extend downwardly and forwardly on the heatshield body **34**, and a cutaway portion **58** which extends upwardly and rearwardly of the heatshield body **34**.

The heatshield body **34** is formed with various retaining structure for receiving and retaining the front and rear mounting arrangements **36**, **38**. As also seen in FIG. **10**, the front end side portion **54** is provided with a set of mounting holes **60**, **61**, **62** which are aligned with a set of mounting holes **64**, **65**, **66** on the opposite front end side portion **56**. In addition, the arcuate upper wall **40** adjacent front end **52** is provided with a three-sided mounting hole **68**. Turning to FIG. **11**, the sidewalls **42**, **44** adjacent rear end **50** are formed with aligned respective mounting holes **70**, **72**, and extensions **74**, **76** that project slightly below respective bottom edges **78**, **80** of the sidewalls **42**, **44**.

With further reference to FIG. **10**, front mounting arrangements **36** includes a pair of spacer blocks **82**, **84** provided with respective high temperature resistant silicon pads **86**, **88**. The front mounting arrangement **36** further includes a pair of side rail arrangements **90**, **92**, threaded fasteners **94**, **96**, and a silicon pad structure **99** including a high temperature resistant silicon pad **100** supported by a glass filled nylon polymer support member **98**. A pair of silicon pads **101** and **103** are attached to the inner surface of the heatshield body **34** near the mounting holes **60**, **64** respectively. In the exemplary embodiment shown, the spacer blocks **82**, **84** are constructed from a non-metal material, such as an extreme temperature resistant polymer (e.g. glass filled nylon), and the rail attachments **90**, **92** are typically constructed of aluminum.

Spacer blocks **82**, **84** are identical, and are constructed with angled mounting faces **102** for retaining the silicon pads **86**, **88** (FIG. **8**) such as with an adhesive applied to the bottom surfaces thereof. Spacer blocks **82**, **84** are each provided with

a center throughhole **104** and a pair of outer throughholes **106**, **108** on opposite sides of center throughhole **104**. Outer faces of the spacer block **82**, **84** are formed with circular projections **110**, **112** surrounding throughholes **106**, **108**, and the outer faces are designed to be positioned against inner surfaces of the front and side portions **54**, **56**. With the spacer blocks **82**, **84** so positioned, the projections **110**, **112** are aligned with, snap fit and frictionally retained within walls forming the mounting holes **60**, **62**, **64**, **66**, as best seen in FIG. **7**.

Silicon pad **100** (FIG. **10**) is slightly curved so as to be correspondingly positioned against the lower surface of arcuate upper wall **40**. The silicon pad **100** is connected to the support member **98** by any suitable means. A tab **114** is provided on an upper surface of the support member **98**, and is sized and shaped so that it is snapped into and frictionally retained in the wall forming mounting hole **68** of the heatshield body **34** so that the silicon pad structure **99** including the support member **98** and the silicon pad **100** together is mounted as shown in FIG. **8**.

Rail attachments **90**, **92** (FIG. **10**) are identically formed with a series of threaded throughholes **116**, **118** and **122** and an unthreaded hole **120**. Threaded blind holes **124** (FIG. **7**) which open into rail attachment inner surfaces designed to be positioned against outer surfaces of the side portions **54**, **56**. As will be understood below, the rail attachments **90**, **92** serve as nuts in clamping the heatshield body **34** to the front of the barrel **12**, and also function as mounting surfaces for optional firearm accessories that may be attached to the front of the shotgun **16**. For this latter function the rail attachments **90**, **92** include outer mounting surfaces **126**, each having a dovetail construction with a ribbed external surface **128** as seen best in FIGS. **8** and **9**.

As shown in FIG. **11**, the rear mounting arrangement **38** includes a high temperature resistant silicon pad **130** which is positioned and retained by any suitable means on an inside surface **132** of an arcuate resilient clip **134**. The clip **134** is preferably constructed of a non-metal material, such as an extreme temperature resistant polymer (e.g. glass filled nylon), and is sized and shaped to be received and frictionally retained in a snap fit upon a rear end of the barrel **12** as well as within the heatshield body **34** adjacent the rear end thereof. To facilitate the retention of the clip **134** within the heatshield body **34**, an outer surface **136** of the clip **134** is provided with a pair of laterally extending nibs **138** and a pair of wings **140** beneath the nibs **138**. The nibs **138** are designed to be frictionally retained in a snap fit within the walls defining the mounting hole **70**, **72** adjacent the rear ends **50** of heatshield body **34**. The wings **140** are configured with ledges **142** (FIG. **9**) to be frictionally engaged in a snap fit with the extensions **74**, **76** located beneath the mounting holes **70**, **72**.

When it is desired to install the heatshield body **34** upon the barrel **12**, the resilient clip **134** is snapped onto a rear portion of the barrel **12** so that silicon pad **130** engages the periphery of barrel **12**. The rear end **50** of the heatshield body **34** is frictionally attached on the external surface of the clip **134** attached to barrel **12** such that the nibs **138** snap into the walls forming mounting holes **70**, **72** and the ledges **142** of wings **140** snap into engagement with the extensions **74**, **76** as seen in FIG. **9**. At the front end **52** of the heatshield body **34**, the spacer blocks **82**, **84** with pads **86**, **88** are snapped into the walls forming the mounting holes **60**, **62**, **64**, **66** from the inside surfaces of side portions **54**, **56**, and the connected support member **98** and silicon pad **100** is snapped via tab **114** into the wall forming the hole **68** from the inner surface of the upper wall **40** of the heatshield body **34**. The silicon pads **86**, **88** are engaged with lower portions of the barrel **12**, and the silicon pad **100** is engaged with an upper end of the barrel **12** as seen in FIG. **8**. The silicon pads **86**, **88**, **100** and **130** serve an important function in protecting the external finish of the barrel **12**.

The inner surfaces of rail attachments **90**, **92** are placed against external surfaces of the side portions **54**, **56**, respectively. Specifically, the inner surface of rail attachment **90** is disposed against the external surface of side portion **54** so that the throughhole **120** is aligned with mounting hole **62**, aligned throughholes **108** of spacer blocks **82**, **84**, mounting hole **66** on the side portion **56**, and blind hole **124** on rail attachment **92**. The inner surface of rail attachment **92** is positioned against the external surface of the side portion **56** so that the throughhole **120** is aligned with mounting hole **64**, the throughholes **106** of spacer blocks **82**, **84**, and mounting hole **60** on side portion **54** and blind hole **124** on rail attachment **90**. Fastener **94** is passed through aligned throughhole **120** of rail attachment **90**, mounting hole **62** on side portion **54**, throughholes **108** of spacer blocks **82**, **84** and mounting hole **66** on side portion **56**, and is threaded into blind hole **124** on rail attachment **92** as seen in FIG. **7**. Fastener **96** is passed through aligned throughhole **120** of rail attachment **92**, mounting hole **64** on side portion **56**, the throughholes **106** of spacer blocks **82**, **84** and mounting hole **60** on side portion **54**, and is threaded into blind hole **124** on rail attachment **90**. The fasteners **94**, **96** are then tightened appropriately to clamp and secure the front end of the heatshield body **34** to the barrel **12**. The heads of fasteners **94**, **96** when fully threaded in rail attachments **90**, **92** lie recessed in countersunk areas leading to throughholes **120** so that the heads do not protrude from the ribbed surfaces **128** of the rail attachments **90**, **92**. In assembled position, the rear end **50** of the heatshield body **34** abuts a front end of receiver **14**, and the front end of heatshield body **34** lies slightly behind the muzzle end of barrel **12**. If desired, Picatanny rails can be further added to the outer mounting surfaces **126** of rail attachments **90**, **92** by means of a dovetail fit so as to further supplement the shotgun **16** with other firearm accessories such as sights, flashlights, laser devices, shotgun shell holders and the like.

It should be appreciated that the present disclosure provides a unique heatshield assembly **10** for a firearm **16** wherein a heatshield body **34** is mounted to a barrel **12** by an insulating mounting arrangement **36**, **38** which maintains the heatshield body **34** isolated, suspended and in free floating relationship relative to the barrel **12** along the entire length of the heatshield body **34**. The mounting arrangement **36**, **38** features snap fit elements on a clip **134** at a rear end of the heatshield body **34**, and spacer blocks **82**, **84** at a front end **52** of the heatshield body **34**. The clip **134** and the clamping spacer blocks **82**, **84** together with silicon pads **86**, **88**, **100**, **101**, **103** and **130** secure the heatshield body **34** to the barrel **12** to prevent sliding movement of the heatshield body **34** during both installation and use of the shotgun **16**. The silicon pads **86**, **88**, **100**, **101**, **103** and **130** can withstand temperatures in excess of 600° F. and, together with the spacer blocks **82**, **84** and clip **134**, prevent metal-to-metal contact between the heatshield body **34** and the barrel **12**, and eliminates scratching or other damage to the barrel **12**. The silicon pads **86**, **88**, **100**, **101**, **103** and **130**, the polymeric spacer blocks **82**, **84** and the clip **134** act as thermal insulators to prevent direct transfer of heat from the barrel **12** to the heatshield body **34** so that heat is dissipated through the vent holes **46** and slots **48** thereof. The heatshield assembly **10** permits the attachment of optional firearm accessories at the front end **52** using the rail attachments **90**, **92**, if desired.

It should be understood that the heatshield assembly **10** can be conveniently provided as a kit comprised of the heatshield

body **34**, the spacer blocks **82**, **84**, the rail attachments **90**, **92**, the fasteners **94**, **96**, the clip **134** and the silicon pads **86**, **88**, **100**, **130**.

Various alternatives are contemplated as being within the scope of the following claims particularly pointing out and distinctly claiming the subject matter regarded as the invention.

What is claimed is:

1. A firearm heatshield assembly comprising: a heatshield body having a pair of opposed ends provided on an arcuate shell having an inner surface, an outer surface and a pair of bottom edges, the heatshield body being adapted to overlie a barrel of a firearm subject to generating heat during firing thereof; and

an insulating mounting arrangement frictionally attached to and positioned at different locations within the heatshield body, the insulating mounting arrangement including a clipping structure which is snap fit within the heatshield body at one location, and a clamping structure which is snap fit within the heatshield body at another location, wherein the clipping structure is engaged with the inner surface and the bottom edges of the heatshield body, and the clamping structure is engaged with the inner surface and the outer surface of the heatshield body, the insulating mounting arrangement being adapted to mount the heatshield body to the barrel of the firearm in a continuous spaced relationship therefrom,

wherein the insulating mounting arrangement includes thermal insulating elements at different locations configured to prevent heat transfer through the thermal insulating elements to the heatshield body.

2. The heatshield assembly of claim **1**, wherein the heatshield body is provided with a retaining structure for the insulating mounting arrangement, and the mounting arrangement is snap fit into the retaining structure.

3. The heatshield assembly of claim **1**, wherein the heatshield body is provided with a set of mounting holes, and the insulating mounting arrangement includes a first insulating mounting arrangement located at one end of the heatshield body, and a second insulating mounting arrangement located at the other end of the heatshield body, the first insulating mounting arrangement being snap fit into walls defining certain of the mounting holes, and the second insulating mounting arrangement being snap fit into walls defining other of the mounting holes.

4. The heatshield assembly of claim **1**, wherein the heatshield body is formed of a metal material, and the insulating mounting arrangement includes a plurality of non-metal mounting elements.

5. The heatshield assembly of claim **1**, wherein the shell of the heatshield body is configured as an elongated, perforated and inverted surface having an arcuate upper wall and a pair of opposed sidewalls depending from the upper wall.

6. The heatshield assembly of claim **1**, wherein the heatshield body has a tapered construction with one end of the heatshield body having an inverted, substantially semi-cylindrical configuration, and the opposite end of the heatshield body having an inverted substantially U-shaped configuration.

7. The heatshield body of claim **1**, wherein one end of the heatshield body is provided with a first set of mounting holes located on opposed sidewalls of the heatshield body, and the other end of the heatshield body is provided with a second set of mounting holes located on the opposed sidewalls and on an upper end of the heatshield body.

8. The heatshield assembly of claim **7**, wherein the insulating mounting arrangement includes a resilient, arcuate clip having an inner surface provided with a first silicon pad structure, and an outer surface provided with nibs which are snap fit into walls defining the first set of mounting holes.

9. The heatshield assembly of claim **8**, wherein lower portions of the clip are provided with wings which are snap fit into engagement with lower edges on the opposed sidewalls of the heatshield body.

10. The heatshield assembly of claim **9**, wherein the insulating mounting arrangement includes a pair of spacer blocks lying along inside surfaces of the opposed sidewalls of the heatshield body, and having projections which are snap fit into walls defining the second set of mounting holes located on the opposed sidewalls of the heatshield body, the spacer blocks having angled mounting surfaces for mounting a second silicon pad structure thereon.

11. The heatshield assembly of claim **10**, wherein the insulating mounting arrangement includes a third silicon pad structure having a tab which is snap fit into a wall defining one of the second set of mounting holes on the upper end of the heatshield body.

12. The heatshield assembly of claim **10**, wherein the insulating mounting arrangement includes a pair of rail attachments positioned on external surfaces of the opposed sidewalls of the heatshield body and aligned with the spacer blocks, and a pair of fasteners, each fastener being passed through one of the rail attachments, one of the opposed sidewalls, the pair of spacer blocks and the other of the opposed sidewalls, and threaded into the other of the rail attachments.

13. A heatshield assembly for a metal barrel of a firearm comprising:

A heatshield body with vent openings provided with a rear end extending to a front end, and configured to overlie the barrel of the firearm subject to generating heat during firing thereof; and

An insulating mounting arrangement frictionally attached to and positioned at different locations within the heatshield body, the insulating mounting arrangement being separate from the heatshield body for mounting the heatshield body to the barrel of the firearm in a continuous spaced relationship therefrom along the entire length of the heatshield body without damaging the barrel,

the heatshield body provided with a retaining structure for the insulating mounting arrangement, the insulating mounting arrangement including a clipping structure snap fit into the retaining structure inside the rear end of a heatshield body, and a clamping structure snap fit into the retaining structure inside the front end of the heatshield body,

wherein the insulating mounting arrangement includes a silicon pad structure which is engageable with the barrel to protect an external finish thereof.

14. The heatshield assembly of claim **13**, wherein the heatshield body is constructed of a metal material, and the insulating mounting arrangement is constructed to prevent metal-to-metal contact between the heatshield body and the barrel.

15. The heatshield assembly of claim **13**, wherein the insulating mounting arrangement includes thermal insulating elements at the different locations configured to prevent heat transfer from the barrel through the thermal insulating elements to the heatshield body so that heat is released through the vent openings of the heatshield body.

16. A method of mounting a heatshield assembly to a metal barrel of a firearm subject to generating heat during firing thereof, the method comprising the steps of:

a) providing a heatshield body having a rear end, a front wall, an arcuate upper wall and a pair of opposed sidewalls depending from the upper wall;

b) providing a rear mounting arrangement which is snap fit snap fit within the rear end of the heatshield body, the rear mounting arrangement including a clipping structure engaged with an inner surface and bottom edges of the heatshield body;

c) providing a front mounting arrangement which is snap fit within the front end of the heatshield body, the front mounting arrangement including a clamping structure engaged with the inner surface and an outer surface of the heatshield body;

d) snapping the rear mounting arrangement onto a rear portion of the barrel; and

e) clamping the front mounting arrangement on a front portion of the barrel,

wherein in the front mounting arrangement and the rear mounting arrangement mount the heatshield body to the barrel in a continuous spaced relationship therefrom along an entire length of the heatshield body without damaging the barrel.

17. The method of claim **16**, wherein the rear mounting arrangement includes a non-metal resilient clip having an inner surface provided with a first silicon pad structure engageable with the barrel, and an outer surface provided with nibs that are snap fit into walls defining rear mounting holes on the rear end of the heatshield body.

18. The method of claim **16**, wherein the front mounting arrangement includes a pair of non-metal spacer blocks provided with projections that are snap fit into walls defining front mounting holes at the front end of the heatshield body, the spacer body being provided with a second silicon pad structure engageable with a lower portion of the barrel.

19. The method of claim **18**, wherein the front mounting arrangement further includes a third silicon pad structure snap fit by means of a tab into a mounting hole formed in the upper wall of the heatshield body at the front end thereof, and engageable with an upper portion of the barrel.

20. The method of claim **19**, wherein the front mounting arrangement also includes a pair of rail attachments positioned on external surfaces of the opposed sidewalls at the front end of the heatshield body, and a pair of fasteners enabling the clamping of the front mounting arrangement, each fastener being passed through one of the rail attachments, one of the sidewalls, the pair of the spacer blocks and the other of the opposed walls, and threaded into the other of the rail attachments.

21. The method of claim **16**, wherein thermal insulating elements are provided in the clipping structure and the clamping structure for preventing heat transfer from the barrel to the heatshield body.

22. A firearm heatshield assembly comprising:

a heatshield body having a pair of opposed ends, the heatshield body being adapted to overlie a barrel of a firearm; and

an insulating mounting arrangement frictionally attached to and located within the heatshield body, the insulating mounting arrangement being adapted to mount the heatshield body to the barrel of the firearm in a continuous spaced relationship therefrom,

wherein one end of the heatshield body is provided with a first set of mounting holes located on opposed sidewalls of the heatshield body, and the other end of the heatshield body is provided with a second set of mounting holes located on the opposed sidewalls and on an upper end of the heatshield body,

wherein the insulating mounting arrangement includes a resilient, arcuate clip having an inner surface provided with a first silicon pad structure, and an outer surface provided with nibs which are snap fit into walls defining the first set of mounting holes, and

wherein lower portions of the clip are provided with wings which are snap fit into engagement with lower edges on the opposed sidewalls of the heatshield body.

23. A method of mounting a heatshield assembly to a metal barrel of a firearm, the method comprising the steps of:

a) providing a heatshield body having a rear end, a front end, an arcuate upper wall and a pair of opposed sidewalls depending from the upper wall;

b) providing a rear mounting arrangement which is snap fit within the rear end of the heatshield body;

c) providing a front mounting arrangement which is snap fit within the front end of the heatshield body;

d) snapping the rear mounting arrangement onto a rear portion of the barrel; and

e) clamping the front mounting arrangement on a front portion of the barrel, wherein the front mounting arrangement and the rear mounting arrangement mount the heatshield body to the barrel in a continuous spaced relationship therefrom without damaging the barrel, and

wherein the front mounting arrangement includes a pair of non-metal spacer blocks provided with projections that are snap fit into walls defining front mounting holes at the front end of the heatshield body, the spacer body being provided with a second silicon pad structure engageable with a lower portion of the barrel.

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